

**REMARKS:**

Claims 1-7 and 10-12 are in the case and presented for consideration.

Claims 1, 6, 7 and 10 have been amended.

Claim 8 has been canceled.

New Claims 11 and 12 have been added. New claims 11 and 12 find support on page 3 of the originally filed specification respectively at lines 5-6 and lines 18-19.

**SPECIFICATION**

The specification has been amended to add clarity to the description and to provide consistent reference to claim elements in light of currently amended claim 8. Support for the amendments to the specification can be found throughout the originally filed specification, particularly on page 4 line 7.

**REJECTION OF CLAIMS UNDER 35 U.S.C. §112, SECOND PARAGRAPH**

Claim 6 has been amended in accordance with Examiner's comments and claim 8 has been canceled.

Additionally, claim 7 has been amended so that it now depends from claim 1. Also, additional amendments have been made to claims 1 and 7 so that claim 7 now further limits claim 1.

Thus, the claims are now believed to be in accord with the requirements of 35 U.S.C. 112, second paragraph.

### CLAIM REJECTIONS UNDER 35 U.S.C. §102(b)

Claims 1-5 were rejected under 35 U.S.C. 102(b) as being anticipated by British Patent GB 1,215,668 to Johnson (“Johnson”). Additionally, claims 1-7 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 3,744,862 to Schwartz (“Schwartz”).

Applicant respectfully traverses the Office's rejections that the claims of the present application are anticipated by the cited prior art.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See, e.g., *Verdeqaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). This standard is not satisfied where the prior art reference merely discloses the “concept”, “essence”, “key” or “gist” of the patented invention “concepts do not anticipate.” *Panduit Corp. v. Dennison Mfg. Co.*, 774 F.2d 1082, 1101 (Fed. Cir. 1985). Additionally, to constitute anticipation, all the claimed elements must be found in exactly the same situation and united in the same way to perform the identical function in a single unit of prior art. *General Elect. Co. v. Nintendo Co., Ltd.*, 179 F.3d 1350 (Fed. Cir. 1999). Furthermore, it is a settled matter of law that dependent claims contain all the elements of the claims from which they depend.

Both Johnson and Schwartz fail to disclose or suggest at least 1 element of currently amended independent claim 1, from which all other claims depend.

Neither Johnson nor Schwartz disclose or suggest a cage comprising fibers which

are “filled with lubricant” as claimed in currently amended independent claim 1.

Therefore, because Johnson and Schwartz both fail to disclose or suggest at least 1 element of currently amended independent claim 1, from which all other claims depend, they do not anticipate any of the claims currently in the case.

**CLAIM REJECTIONS UNDER 35 U.S.C. §103(a)**

Claims 1-8 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,425,761 to Eibofner (“Eibofner”) in view of U.S. Patent 4,541,739 to Allen et al (“Allen”). Additionally, claims 1-7 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Eibofner in view of Schwartz. Also, claims 1-5 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Eibofner in view of Johnson. Finally, claim 9 was rejected under 35 U.S.C. 103(a) as being unpatentable over Allen, Schwartz, and Johnson, individually.

Applicant respectfully traverses the Office’s rejections that the claims of the present application are obvious in view of the cited prior art.

As mentioned above, both Johnson and Schwartz fail to disclose or suggest at least one element claimed in currently amended independent claim 1, from which all other claims depend. Furthermore, Allen and Eibofner also fail to provide the at least one element of claim 1 which is missing from Johnson and Schwartz.

Moreover, none of the cited prior art references provide a teaching or suggestion which would be sufficient to motivate one of ordinary skill in the art to come up with and

combine the otherwise missing element and hence arrive at the presently claimed invention.

Further, Eibofner does not disclose anything other than ball bearings for use in dental applications. Eibofner does not disclose, the precise dimensions of the ball bearing and its operation speed as claimed in independent claim 1.

Additionally, Applicant respectfully disagrees with Examiner comments regarding Allen. The ball bearing disclosed in Allen is made of an epoxy resin and woven fibers. However, Allen clearly teaches to remove the warp strands to form spaced cylindrical lubricant reservoirs. The material of Allen therefore has pores and canals and an enlarged surface. In dental applications, sterilization is necessary. That means high temperature, moisture and pressure, which opens the path to a strong hydrolysis attack on the epoxy resin, especially to those with an enlarged surface area. Hydrolysis leads to a degradation of the epoxy polymer and to dramatically shortened lifetime of ball bearings.

In column 1 line 45 Allen states that the uncontrolled closure of the pores may disadvantageously prevent oil from moving from the reservoirs to the ball contact surface. That means the other way round that definitely the ball bearing according to Allen should have open pores which is in contrast to the requirements of dental use.

In addition, Allen does not disclose the use of a fleece. The use of fleece would be counterproductive according to the teaching of Allen because it would no longer be possible to etch canals into the material, since fleece does not have warp nor woof strands. Allen also does not mention the fibers to be impregnated by lubricant as the invention does.

Therefore, because the above cited prior art references either fail to disclose or teach away from elements of independent claim 1, and because they fail to provide a teaching, suggestion or motivation which one of ordinary skill in the art could use to arrive at the present invention, their combination does not render any of the current claims obvious.

#### REJECTIONS OF CLAIM 2 AS INHERENT

Claim 2 was rejected as containing inherent limitations in light of the individual teachings of both Allen and Schwartz.

The rejection is noted but Applicant respectfully traverses them.

In column 2 Allen discloses to cure the raw material which is the normal forming process, which is not the same as and does not suggest the special heat treatment as claimed in the invention.

The term "heat treatment" means to use a special temperature gradient program. Transferring the ball bearing material of Allen to the device of Eibofner would have meant to use the Allen material without any modification. To adopt the material to the invention, a person skilled in the art would have to omit the woven fibers thereby abandoning the possibility of etch away the strands and forming open pores and canals. This is in contrast to the explicit teaching of Allen.

Finally, the characteristics of the inventive epoxy resin claimed in claim 2 are not inherent characteristics of the material in Allen since there are a huge variety of epoxy resins all with different physical and chemical characteristics.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested.

No new matter has been added.

If any issues remain, the Examiner is respectfully invited to contact the undersigned at the number below, to advance the application to allowance.

Respectfully submitted,  
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